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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,048	03/06/2007	Chi Bun Ching	08625-006US1 / 2506US	1604
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EXAMINER				
LAU, JONATHAN S				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,048	Applicant(s) CHING ET AL.	
	Examiner Jonathan S. Lau	Art Unit 1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

This Office Action details a Restriction Requirement and an Election of Species Requirement.

Restriction Requirement

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-25 and 31-36, drawn to a cationic oligomer of a saccharide and methods of making thereof.

Group II, claim(s) 26, 27, 37 and 38, drawn to a method of enantiomeric separation of racemates using said cationic oligomer.

Group III, claim(s) 28-30, 39 and 40, drawn to a method of asymmetric synthesis using said cationic oligomer.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common feature of the inventions of Groups I-III is the cationic oligomer of a saccharide. However, a cationic oligomer of a saccharide according to formula I of instant claim 1 is a known product. See Dow et al. (WIPO Publication WO 97/49735, published 31 Dec 1997, provided by Applicant), specifically 6-deoxy-6-imidazolyl-cyclodextrin on page 12, line 5. Therefore such a product does not serve as the special technical feature of a single general inventive concept. The special technical feature of the invention of Group I is

the specific chemical structure of a specific cationic oligomer of a saccharide. The special technical feature of the invention of Group II is the specific method of enantiomeric separation of racemates using a specific cationic oligomer of a saccharide with a specific chemical structure. The special technical feature of the invention of Group III is the specific method of asymmetric synthesis using a specific cationic oligomer of a saccharide with a specific chemical structure.

Election of Species Requirement

In addition to restricting to the invention of Group I, II or III, Applicant is further required to elect from the following election of species requirement.

This application contains claims directed to more than one species of the generic invention of a cationic oligomer of a saccharide. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows (disclosed in examples 1-15 spanning pages 24-38 of the specification):

- a) 6-deoxy-6-(methylimidazolium)- β -cyclodextrin tosylate,
- b) 6-(butylimidazolium)-6-deoxy- β -cyclodextrin tosylate,
- c) 6-deoxy-6-(octylimidazolium)- β -cyclodextrin tosylate,
- d) 6-deoxy-6-{2-(2-ethoxyethoxy) ethylimidazolium}- β -cyclodextrin tosylate,
- e) mono-6-deoxy-6-pyridinium- β -cyclodextrin tosylate,
- f) mono-6-allylammonium-6-deoxy- β -cyclodextrin tosylate,

- g) mono-6-deoxy-6-(n-propylammonium)- β -cyclodextrin tosylate,
 - h) mono-6-deoxy-6-(n-butylammonium)- β -cyclodextrin tosylate,
 - i) mono-6-deoxy-6-(n-pentylammonium)- β -cyclodextrin tosylate,
 - j) mono-2-allylammonium-2-deoxy- β -cyclodextrin tosylate,
 - k) mono-2-deoxy-2-(n-propylammonium)- β -cyclodextrin tosylate,
 - l) mono-6-deoxy-6-(dimethyl n-butyl ammonium) permethylated β -cyclodextrin iodide,
 - m) mono-6-amino-6-deoxy- β -cyclodextrin,
 - n) mono-6-deoxy-6-(trimethyl ammonium) permethylated β -cyclodextrin iodide,
- and
- o) 6-deoxy-6-(methylimidazolium)- β -cyclodextrin chloride.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. For example, a) 6-deoxy-6-(methylimidazolium)- β -cyclodextrin tosylate. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

All claims are generic.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: As recited above, the common feature of the inventions of Groups I-III is the cationic oligomer of a saccharide.

However, a cationic oligomer of a saccharide according to formula I of instant claim 1 is a known product. See Dow et al. (WIPO Publication WO 97/49735, published 31 Dec 1997, provided by Applicant), specifically 6-deoxy-6-imidazolyl-cyclodextrin on page 12, line 5. Therefore such a product does not serve as the special technical feature of a single general inventive concept. The special technical feature of the invention of Group I is the specific chemical structure of a specific cationic oligomer of a saccharide. The special technical feature of the invention of Group II is the specific method of enantiomeric separation of racemates using a specific cationic oligomer of a saccharide with a specific chemical structure. The special technical feature of the invention of Group III is the specific method of asymmetric synthesis using a specific cationic oligomer of a saccharide with a specific chemical structure.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the

requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product

are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan S. Lau whose telephone number is 571-270-3531. The examiner can normally be reached on Monday - Thursday, 9 am - 4 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Anna Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jonathan S. Lau
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